



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/616,762 | 07/10/2003 | Timothy P. Blair | 200300426-1 | 2303 |

22879 7590 10/19/2005

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

FLOURNOY, HORACE L

ART UNIT PAPER NUMBER

2189

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,762

Applicant(s)

BLAIR ET AL.

Examiner

Horace L. Flournoy

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-37 are presented for examination.

Claim Objections

Claims 5-7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 5-7 recite the limitation "is defined as" which merely renames a given term and does not narrow the scope of their respective claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Ralphs (U.S. PG Pub no. 2003/0225988 hereafter referred to as Ralphs).

With respect to independent claim 1,

“A method of retrieving data, comprising: waiting for a predefined interval of time;” is disclosed in paragraph [0007].

Ralphs discloses in paragraph [0007], “Some tape drivers specify either one or two timeout values to specify the amount of time the device driver should wait for a response from a tape drive.”

Ralphs teaches a method of retrieving data, comprising: waiting for a predefined interval of time (timeout values to specify the amount of time the device driver should wait).

“...retrieving a first quantity of data from a remote entity after the predefined interval of time; and...” is disclosed in paragraph [0008] and FIG.1.

Ralphs discloses in paragraph [0008], “...provide a command initiated by an application program to a tape device; read a timeout value from a file, where the timeout value is a first timeout value if the command is a first type of command, a second timeout value if the command is a second type of command...”

“...redefining the interval of time in accordance with a predefined function.” is disclosed in paragraph [0026].

Ralphs discloses in paragraph [0026], "The tape driver 201 may initiate a timeout period each time it provides a command to the tape device. Timeout values indicating the duration of timeout periods that may be initiated may be stored in a configuration file 207 or a data file 209 that is accessible by the tape driver 201... For example, these device drivers may read a timeout value associated with a particular brand and/or model of a storage device being accessed and initiate a timeout period having a duration specified by that timeout value."

Ralphs teaches redefining the interval of time (The tape driver 201 may initiate a timeout period each time it provides a command to the tape device) in accordance with a predefined function (timeout value associated with a particular brand and/or model of a storage device being accessed).

With respect to claims 2, 12, and 22,

"The method of claim 1, and further comprising: waiting for the redefined interval of time; and retrieving a second quantity of data from the remote entity after the redefined interval of time." is disclosed in paragraph [0008] and FIG. 1.

Ralphs discloses in paragraph [0008], "...provide a command initiated by an application program to a tape device; read a timeout value from a file, where the timeout value is a first timeout value if the command is a first type of command, a second timeout value if the command is a second type of command..."

Note: the limitation "redefined interval of time" is disclosed as stated supra in claim 1. Note: Ralphs also discloses a computer-accessible storage media wherein the program code is configured to cause the processor to execute the above limitations of claim 2 thereby to arrive at claim 22 (see paragraphs [0027] and [0028]).

With respect to claims 3, 18, 27, 32, and 33,

"The method of claim 1, and wherein the retrieving the first quantity of data includes deleting the first quantity of data at the remote entity." is disclosed in paragraph [0049] and FIG.1.

Ralphs discloses in paragraph [0049] "In many embodiments, a tape driver 201 may be configured so that a user can modify existing timeout values. For example, an interface may be provided so that a user may add, delete or edit time-out values or entries."

Ralphs teaches retrieving the first quantity of data (stated above) includes deleting the first quantity of data (user may add, delete or edit time-out values or entries) at the remote entity (see FIG. 1 elements 101, 132,150). Note: Ralphs also discloses a computer-accessible storage media wherein the program code is configured to cause the processor to execute the above limitations of claim 3 thereby to arrive at claim 27 (see paragraphs [0027] and [0028]).

With respect to claims 4, 10, 13, and 23,

“The method of claim 1, and wherein: retrieving the first quantity of data defines a retrieval quantity; and...” is disclosed in paragraphs [0032] and [0052].

Ralphs discloses in paragraph [0032], “Other categorizations and number of categories for time out values may be provided for in other embodiments. For example, in one embodiment, timeouts may be defined for the following seven categories of commands: inquiry commands, I/O commands, rewind commands, space commands...” Ralphs also discloses in paragraph [0052], “...Examples of properties include the default block size of a tape device and the name of a device. Additional types of tape drives (e.g., not already included in a configuration table 350 included in a device driver 201) may be given device-specific timeouts by supplying device information as a property.”

Ralphs teaches retrieving the first quantity of data (stated supra in claim 1) defines a retrieval quantity (space command/default block size). Note: the limitation “defines a retrieval quantity” can be included with “retrieving the first quantity of data” as taught by Ralphs since the timeout values are configurable. Ralphs discloses in paragraph [0050], “FIG. 7 shows a flowchart of another embodiment of a method of initiating timeout periods. In this embodiment, timeouts are both device-specific and command-specific.”

“...redefining the interval of time in accordance with the predefined function includes: dividing the predefined interval of time by the retrieval quantity to define a data creation period; and...” is disclosed in paragraph [0038] and FIG. 3.

Ralphs discloses in paragraph [0038], “Several multiplier values may be available in some embodiments. This way, different multiplier values may be specified for different categories of commands. In some embodiments, all or some of the categories may have category-specific default multiplier values, as shown in FIG. 3. In one embodiment, a user may specify one or more specific multiplier value(s) (e.g., by modifying a configuration value) to be used with the different categories. In some embodiments one or more global multipliers may be provided in addition to or instead of the per-category multipliers. A global multiplier may affect all of the timeout values. In some embodiments, a multiplier may be a fractional multiplier for reducing a timeout value.”

Ralphs teaches dividing (a multiplier may be a fractional multiplier) the predefined interval of time (global multiplier may affect all of the timeout values) by the retrieval quantity (see FIG. 3) to define a data creation period (created by the timeout value divided by one of the commands of FIG. 3: a user may specify one or more specific multiplier value(s) (e.g., by modifying a configuration value)).

“...multiplying the data creation period by a predefined quantity to redefine the interval of time.” is disclosed in paragraph [0038] and FIG. 3.

Ralphs teaches multiplying (multiplier) the data creation period (configured timeout value) by a predefined quantity to redefine the interval of time (A global multiplier may affect all of the timeout values). Note: Ralphs also discloses a computer-accessible storage media wherein the program code is configured to cause the processor to execute the above limitations thereby to arrive at claim 23 (see paragraphs [0027] and [0028]).

With respect to claims 5 and 14,

“The method of claim 4, and wherein the predefined quantity is defined as a predefined optimum retrieval quantity.” is disclosed in paragraph [0008] and FIG.1.

Ralphs discloses in paragraph [0008], “...provide a command initiated by an application program to a tape device; read a timeout value from a file, where the timeout value is a first timeout value if the command is a first type of command, a second timeout value if the command is a second type of command...”

With respect to claims 7, 16, 25, and 34,

“The method of claim 4, and wherein the predefined quantity is defined as an optimum file retrieval count determined in accordance with a predefined optimization formula.” is disclosed in paragraph [0026].

Ralphs discloses in paragraph [0026], "Embodiments of device drivers implemented for other types of storage devices may also specify device-specific and/or operation-specific timeouts in a similar manner. For example, these device drivers may read a timeout value associated with a particular brand and/or model of a storage device being accessed and initiate a timeout period having a duration specified by that timeout value."

Ralphs teaches a predefined quantity (device-specific and/or operation-specific timeouts) is defined as an optimum file retrieval count determined in accordance with a predefined optimization formula.

With respect to claims 8, 17, 26, and 35,

"The method of claim 7, and wherein the predefined optimization formula is defined as: optimum file retrieval count=((optimum retrieval packet size-overhead)/file size)." is disclosed in paragraphs [0029], [0037], and [0038] and FIG. 3.

Ralphs discloses in paragraph [0029], "a timeout period may be initiated by setting a counter in a HBA (Host Bus Adapter) (e.g., included in host computer system 101 to couple the host 101 to the host/storage connection 132) to a default value and causing the counter to be decremented until either the count reaches zero or the tape device 180 responds to the command." Ralphs discloses in paragraph [0038], "a multiplier may be a fractional multiplier for reducing a timeout value."

Ralphs teaches a predefined optimization formula (see claim 7 above) is defined as: optimum file retrieval count=((optimum retrieval packet size-overhead)/file size).

Ralphs teaches an optimum retrieval packet size (counter) that is decremented by and overhead (device or operations specific timeout value), and finally divided by a file size (fractional multiplier – see FIG. 3).

Note: Ralphs also discloses a computer-accessible storage media wherein the program code is configured to the above limitations of claim 8 thereby arriving at claim 26 (see paragraphs [0027] and [0028]).

With respect to claims 9, 20, 28, and 30,

“The method of claim 1, and wherein retrieving the first quantity of data from the remote entity is performed by way of the Internet.” is disclosed in paragraphs [0026] and [0027].

Ralphs discloses in paragraph [0027], “...In addition, the computer readable medium may be located in either a first computer, in which the software program is stored or executed, or in a second different computer, which connects to the first computer over a network such as the Internet. In the latter instance, the second computer may provide the program instructions to the first computer for execution.”

With respect to independent claim 11,

Art Unit: 2189

"A data handling system, comprising: a remote entity configured to store data; a local entity coupled in data communication with the remote entity, the local entity configured to..." is disclosed in FIG. 1.

Ralphs discloses a remote entity configured to store data (storage system 150); a local entity coupled in data communication with the remote entity (host 101).

"wait for a predefined interval of time;" is disclosed in paragraph [0007].

Ralphs discloses in paragraph [0007], "Some tape drivers specify either one or two timeout values to specify the amount of time the device driver should wait for a response from a tape drive."

Ralphs teaches a method of retrieving data, comprising: waiting for a predefined interval of time (timeout values to specify the amount of time the device driver should wait).

"...retrieve a first quantity of data from the remote entity after the predefined interval of time; and..." is disclosed in paragraph [0008] and FIG. 1.

Ralphs discloses in paragraph [0008], "...provide a command initiated by an application program to a tape device; read a timeout value from a file, where the timeout value is a first timeout value if the command is a first type of command, a second timeout value if the command is a second type of command..."

“...redefine the interval of time in accordance with a predefined function.” is disclosed in paragraph [0026].

Ralphs discloses in paragraph [0026], “The tape driver 201 may initiate a timeout period each time it provides a command to the tape device. Timeout values indicating the duration of timeout periods that may be initiated may be stored in a configuration file 207 or a data file 209 that is accessible by the tape driver 201... For example, these device drivers may read a timeout value associated with a particular brand and/or model of a storage device being accessed and initiate a timeout period having a duration specified by that timeout value.”

Ralphs teaches redefining the interval of time (The tape driver 201 may initiate a timeout period each time it provides a command to the tape device) in accordance with a predefined function (timeout value associated with a particular brand and/or model of a storage device being accessed).

With respect to claims 15, 6, 24, and 31,

“The data handling system of claim 13, and wherein the local entity is further configured such that the predefined quantity is selectively re-definable in response to an input.” is disclosed in paragraph [0038] and FIGs. 1 and 3.

Ralphs discloses in paragraph [0038], “Several multiplier values may be available in some embodiments. This way, different multiplier values may be specified for different categories of commands. In some embodiments, all or some of the categories

may have category-specific default multiplier values, as shown in FIG. 3. In one embodiment, a user may specify one or more specific multiplier value(s) (e.g., by modifying a configuration value) to be used with the different categories. In some embodiments one or more global multipliers may be provided in addition to or instead of the per-category multipliers. A global multiplier may affect all of the timeout values. In some embodiments, a multiplier may be a fractional multiplier for reducing a timeout value.”

Ralphs teaches the local entity (FIG. 1) is further configured such that the predefined quantity (timeout value) is selectively re-definable (all or some of the categories may have category-specific default multiplier values) in response to an input (global multiplier). Note: Ralphs also discloses a computer-accessible storage media wherein the program code is configured to cause the processor to execute the above limitations of claim 15 thereby arriving at claim 24 (see paragraphs [0027] and [0028]).

With respect to claim 19,

“The data handling system of claim 11, and wherein the local entity includes a data storage device configured to store the first quantity of data in correspondence to the retrieval of the first quantity of data from the remote entity.” is disclosed as stated supra in claim 11 and FIGs. 1 and 2.

Ralphs discloses a local entity (host 101) that includes a data storage device (memory 105) configured to store the first quantity of data in correspondence to the

retrieval of the first quantity of data from the remote entity (stated supra in claims 1, 2, and 11).

With respect to independent claim 21,

“A computer-accessible storage media including an executable program code, the program code configured to cause a processor to:” is disclosed in paragraphs [0027] and [0028].

“wait for a predefined interval of time;” is disclosed in paragraph [0007].

Ralphs discloses in paragraph [0007], “Some tape drivers specify either one or two timeout values to specify the amount of time the device driver should wait for a response from a tape drive.”

Ralphs teaches a method of retrieving data, comprising: waiting for a predefined interval of time (timeout values to specify the amount of time the device driver should wait).

“...retrieve a first quantity of data after the predefined interval of time; and...” is disclosed in paragraph [0008] and FIG.1.

Ralphs discloses in paragraph [0008], “...provide a command initiated by an application program to a tape device; read a timeout value from a file, where the timeout value is a first timeout value if the command is a first type of command, a second timeout value if the command is a second type of command...”

“...redefine the interval of time in accordance with a predefined function.” is disclosed in paragraph [0026].

Ralphs discloses in paragraph [0026], “The tape driver 201 may initiate a timeout period each time it provides a command to the tape device. Timeout values indicating the duration of timeout periods that may be initiated may be stored in a configuration file 207 or a data file 209 that is accessible by the tape driver 201...For example, these device drivers may read a timeout value associated with a particular brand and/or model of a storage device being accessed and initiate a timeout period having a duration specified by that timeout value.”

Ralphs teaches redefining the interval of time (The tape driver 201 may initiate a timeout period each time it provides a command to the tape device) in accordance with a predefined function (timeout value associated with a particular brand and/or model of a storage device being accessed).

With respect to independent claim 29,

“A data system, comprising: a remote entity configured to store data; a user computer coupled in data communication with the remote entity and configured to generate and store data within the remote entity; and a local entity coupled in data communication with the remote entity,” is disclosed in FIG. 1, the abstract and paragraphs [0019]-[0021].

Ralphs discloses in the abstract, "A computer system may include a host computer system and a storage device such as a tape device that includes one or more tape drives. The host computer system may be configured to provide commands to the storage device and to initiate a timeout period for each command provided to the storage device."

Ralphs teaches a remote entity configured to store data (FIG. 1.); a user computer coupled in data communication with the remote entity (storage device) and configured to generate and store data within the remote entity (The host computer system may be configured to provide commands to the storage device and to initiate a timeout period for each command provided to the storage device).

"...the local entity configured to: wait for a predefined interval of time; retrieve a first quantity of data defining a retrieval quantity from the remote entity after the predefined interval of time;" is disclosed as stated supra in claim 1.

"...divide the predefined interval of time by the retrieval quantity to define a data creation period; multiply the data creation period by a predefined quantity to redefine the interval of time;" is disclosed as stated supra in claim 4.

"...wait for the redefined interval of time; and retrieve a second quantity of data from the remote entity after the redefined interval of time." Is disclosed as stated supra in claim 2.

With respect to claim 36,

“The data system of claim 29, and further comprising: another remote entity configured to store data; another user computer coupled in data communication with the other remote entity, the user computer configured to generate and store data within the other remote entity, and wherein the local entity is further configured to:” is disclosed as stated supra in claim 29 and FIG. 1.

“...wait for another predefined interval of time; retrieve a third quantity of data defining another retrieval quantity from the other remote entity after the other predefined interval of time;” is disclosed as stated supra in claims 1 and 2

“...divide the other predefined interval of time by the other retrieval quantity to define another data creation period; multiply the other data creation period by another predefined quantity to redefine the other interval of time;” is disclosed as stated supra in claim 4.

“...wait for the other redefined interval of time; and retrieve a fourth quantity of data from the other remote entity after the other redefined interval of time.” is disclosed as stated supra in claims 1 and 2.

Note: the examiner interprets first, second, and third, fourth... quantities of data retrieved as analogous in meaning.

With respect to independent claim 37,

“A data handling system, comprising: remote means for generating a present quantity of data; and...” is disclosed above and in FIG. 1.

“...local means for: waiting for an interval of time corresponding to retrieving a prior quantity of data from the remote means; and retrieving the present quantity of data from the remote means after the interval of time.” is disclosed as stated supra in claim 1.

Conclusion

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Horace L. Flournoy whose telephone number is (571) 272-2705. The examiner can normally be reached on Monday-Friday 7:00 AM to 4:30 PM (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Sparks can be reached on (571) 272-4201. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 746-7239

Art Unit: 2189

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Horace L. Flournoy



Patent Examiner

Art unit: 2189



CHRISTIAN CHACE
PRIMARY EXAMINER

Primary Patent Examiner

Technology Center 2100